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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,129	05/07/2007	Wolfgang Issler	ISSLER ET AL-9 PCT	4137
25889	7590	03/24/2009		
COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576			EXAMINER LESLIE, MICHAEL S	
			ART UNIT 3745	PAPER NUMBER
			MAIL DATE 03/24/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/590,129	<b>Applicant(s)</b> ISSLER ET AL.	
	<b>Examiner</b> MICHAEL LESLIE	<b>Art Unit</b> 3745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 August 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/18/2006</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the oil grooves, pockets, slots, or oil bores disposed in the pin bores (claim 9) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Art Unit: 3745

***Claim Objections***

Claims 1, 5, and 8 are objected to because of the following informalities: Claim 1, Line 12, "axis (z)" should be --axis (x)--; Claim 5, Line 3, "bores (2.4)" should be --bores (2)--; Claim 8, Line 4, --bore-- should be inserted after "pin". Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 7 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 recites "the mantle surface having a highly oval shape", that is further defined as the "pin boss equator - pin boss nadir - pin boss equator" half circle, which conflicts with the definition recited in claim 1, lines 3-5.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required

Art Unit: 3745

feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 8 recites the broad recitation "offset ... 0.03 and 0.5 percent", and the claim also recites "preferably 0.1 and 0.15 percent" which is the narrower statement of the range/limitation.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5, and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Schmidt (DE 7605527).

Schmidt discloses a piston pin bearing for pistons having pin bores in which a piston pin is mounted, whereby the pin bores have a mantle surface having a highly oval shape in the pin boss equator--pin boss zenith--pin boss equator region, and a mantle surface having a circular-cylindrical shape in the pin boss equator--pin boss nadir--pin boss equator region (Fig. 6), whose mantle lines running in the nadir and the zenith are oriented parallel to one another, wherein the mantle line of the highly oval mantle surface running in the pin boss zenith runs at an incline relative to the pin boss axis on the piston side, from radially outside to radially inside, at an angle (Fig. 5), in such a manner that the greatest ovality defined by its oval diameter occurs at the inner ends of the pin bores, in each instance, and does not exceed a predetermined value of the oval

Art Unit: 3745

diameter. Wherein the incline of the mantle line determined by the angle includes only a partial region (Fig. 5) of the pin bores and runs in a linear manner. A partial region (Fig. 5) of the pin bores that is not configured in highly oval manner is configured as a circular cylinder, and the pin bores have molded bore regions.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt (DE 7605527) in view of Ueshima et al (6279456).

Schmidt discloses a piston pin bearing as described above, but does not teach that the incline runs in a polygonal manner, or that the pin bore includes oil grooves, pockets, slots, or oil bores for feeding lubricant oil.

Ueshima et al discloses a piston having pin bores (2a) that include oil grooves, pockets, slots, or oil bores (12) for feeding lubricant oil to the bore.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify pin bore of Schmidt to have oil grooves, pockets, slots, or oil bores as taught by Ueshima et al for the purpose of reducing wear and preventing seizure.

In further regard to claim 4, since applicant has not disclosed that having the incline run in a polygonal manner solves any stated problem or is for any particular purpose above the fact

Art Unit: 3745

that a polygonal incline allows a more gradual incline and it appears that the incline of Schmidt would perform equally well with the incline that runs in a polygonal manner as claimed by applicant, it would have been an obvious matter of design choice to modify the incline of Schmidt by utilizing polygonal segment as claimed for the purpose of stress reduction.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL LESLIE whose telephone number is (571)272-4819. The examiner can normally be reached on M-F 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look can be reached on (571) 272-4820. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ML  
March 23, 2009

/Michael Leslie/  
Primary Examiner, Art Unit 3745

Application/Control Number: 10/590,129

Page 7

Art Unit: 3745